

1 STRUCTURE AND METHOD FOR LOADING ENCRYPTION KEYS
2 THROUGH A TEST ACCESS PORT

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7 It is sometimes desirable to encrypt a design for loading into a PLD so that
8 an attacker may not learn and copy the design as it is being written into the PLD.
9 It is desirable that decryption keys be stored within the PLD, and that they be
10 loaded conveniently before a board including the PLD is sold. The invention
11 allows the PLD to be placed into a printed circuit board and the board to be tested
12 using a JTAG port of the PLD, and then allows the decryption keys to be loaded
13 into a key memory using the JTAG port. Loading of the keys can be performed
14 without also loading of a design into the PLD. Loading may be performed
15 without the use of a device programmer.